

DOW Support to PACAF METSAT



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PACAF/DOWX**



Briefing Summary:



- **PACAF METSAT Plans & Requirements (DOWV)**
Mission Statement: Evaluates technical requirements, coordinates intelligence collection, and arranges environmental support for PACAF projects, studies, or programs.
- **PACAF INSTRUCTION 15-102 (DOWV)**
 - **Changes since 1997**
 - **Near future revisions**
- **TACTERMS (DOWX)**
 - **MARK IVB**
 - **Small Tactical Terminal (STT)**
 - **Joint METSAT Ingest Software and Terminal (JMIST) CONOPS Overview**



METSAT Programs and Requirements

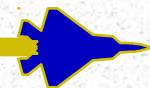


- **The DOWX task is to validate requirements and to help AFWA rank order requested improvements at Review Boards**
- **JTWC, Elmendorf, Kadena, and Andersen have all submitted suggestions for improvements to M4B.**
- ***Please submit METSAT requirements in writing to PACAF/DOW***
 - **E-mail and Phone calls are no**
substituted



PACAFI 15-102

Changes since 1997:

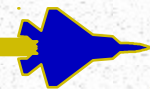


- **607 WS TC fix responsibilities are limited to determination and reporting of center position**
- **AFWA/XOGM will provide backup SATOPS fix support to JTWC/AJTWC**
- **Redefined the Korean WDPN responsibility**
 - **607 WS issues WDPN instead of Osan and Kunsan AB (Reengineering)**
 - **The 607 WS provides area forecasts for AOR in the Tropical Cyclone Discussion Bulletin, WHKO RKSZ**
- **Refinement of Radar TC fix procedures**
 - **Provided more guidance and detail**



PACAFI 15-102

Near Future Revisions:



- **JTWC SATOPS gained CPHC DMSP fix responsibility and the Hickam MSC**
- **Centralized PACAF METSAT fix responsibility to JTWC**
- **Mark IVB remote client troubleshooting pro**
 - **Include local Comm Sq in troubleshooting**
- **Assign Mark IVB Geo-ingest (MET 5, GMS-5,**



Current Geo METSAT Ingest Opportunities

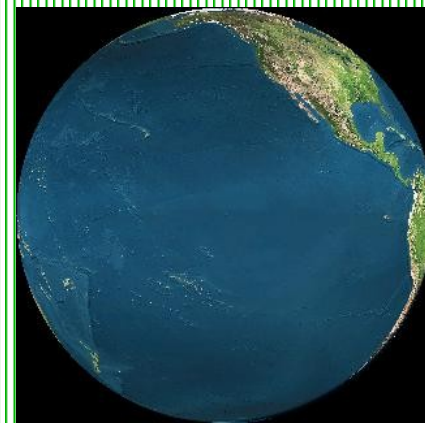


Met 5 (64E)

**Only Kadena can get
Meteosat 5 (Left)**

**Hickam (and
Elmendorf) can get
GOES W (Right)**

**Kadena, Andersen
and Hickam can all
get GMS/MTSAT
(Bottom)**



GOES W (135W)



Kadena



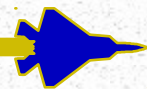
Andersen



Hickam



Proposed Geo METSAT Ingest Assignment

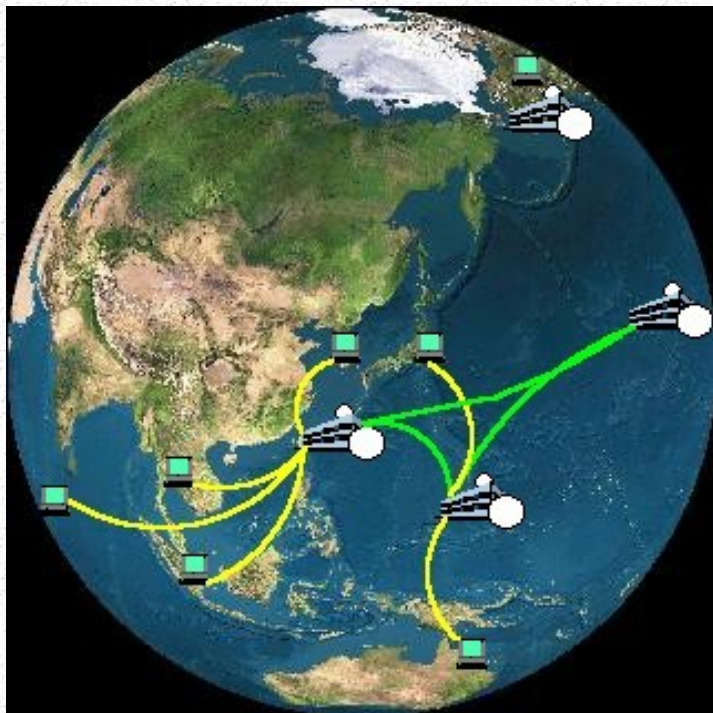


- **Hickam M4B** → **GOES West**
- **Andersen** → **GMS (and MTSAT)**
- **Kadena** → **Meteosat 5**

Avoid duplication and get geostationary coverage over entire AOR.

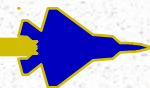
All Mark IVB sites & OWS can access each others imagery, *both* geo and regional polar

Additional Clients or GIDSView users can get high res GEO (and DMSP) METSAT imagery without





TACTERM Status & Network

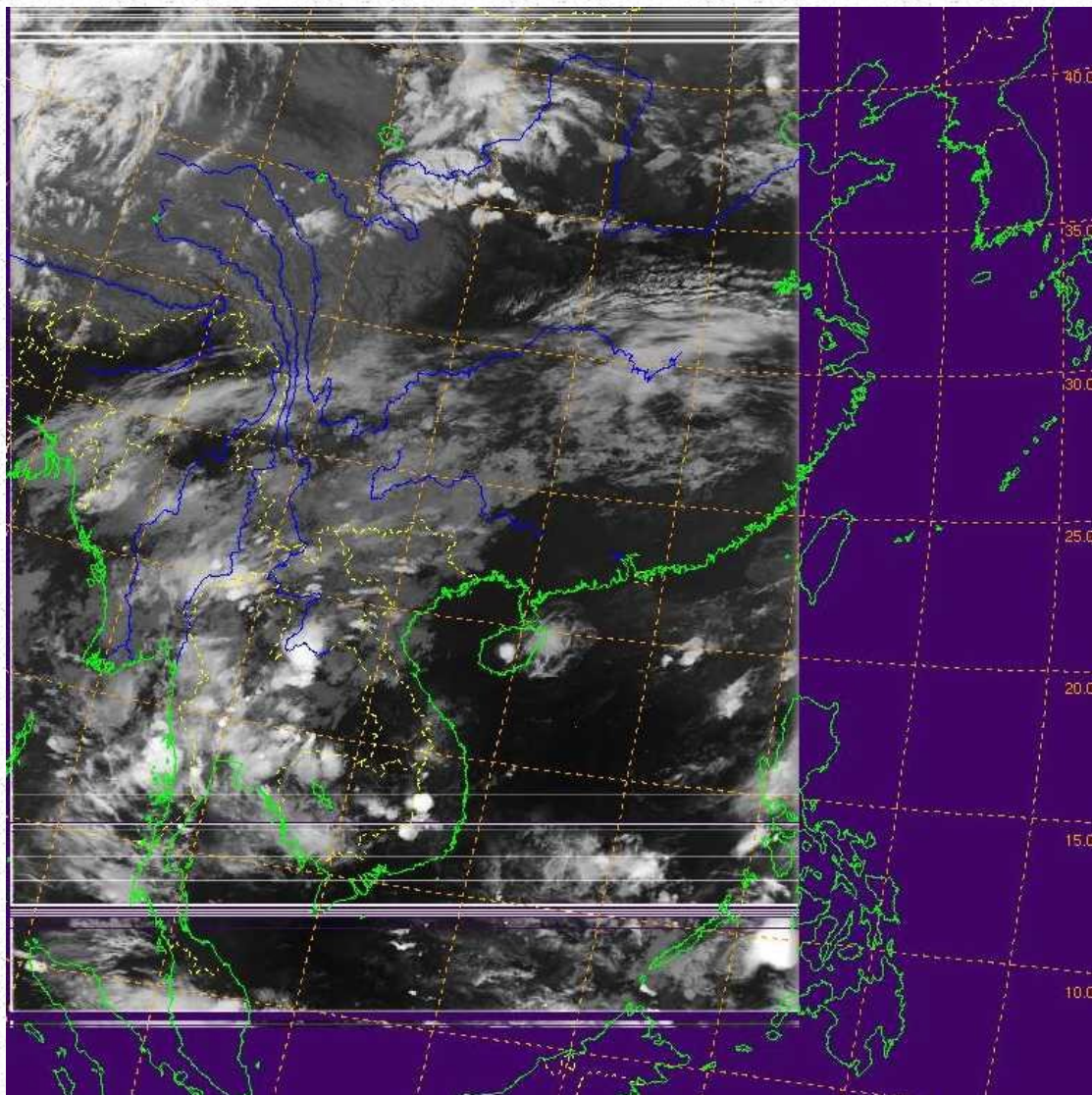
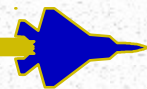


Direct Readout Terminals (DRT) for HRES Geo:

- Mark IVB and JTFST/H-STT
 - Currently can not “talk” to each other due to different data files and interfaces
- Mark IVB offers Client/Server capabilities
 - This will allow centralized PACAF METSAT fixing at JTWC
- H-STT will eventually have W-STT (T)-



Remote client capabilities

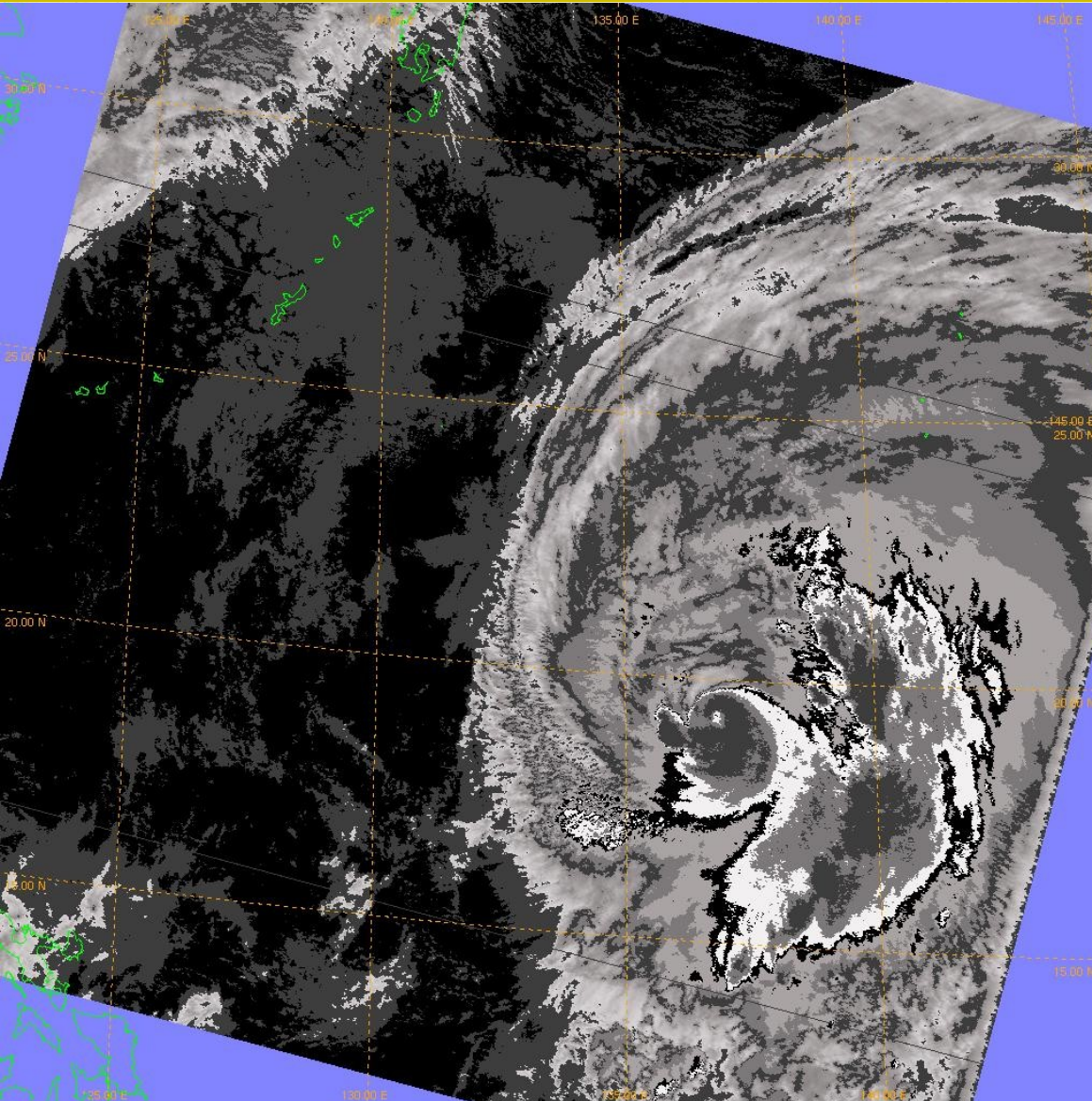
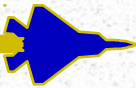


This image was seen while accessing the Kadena server from the Valley Forge M (Lockheed Martin

The satellite was located on the horizon from Kadena, but still provided the ability to view into SE Asia



Remote client capabilities



Sample client DM received by JTWC from the Kadena M4B server shortly after ingest.

Super Typhoon 01 (Damrey)



JMIST Background

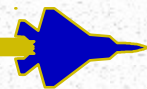
(Joint METSAT Ingest Software and Terminal)



- **Current systems are too costly to maintain individually**
 - **Need to reduce number of terminals**
- **Need to apply reengineering concepts**
 - **Reduce training and maintenance**
 - **Reduce deployed footprint (pallet load)**
 - **Define roles & responsibilities of OWS & CWTs**
 - **Reduce CWT's COMSEC requirements**
- **Need to define interface to C2 systems**
- **Need to prepare for NPOESS and**



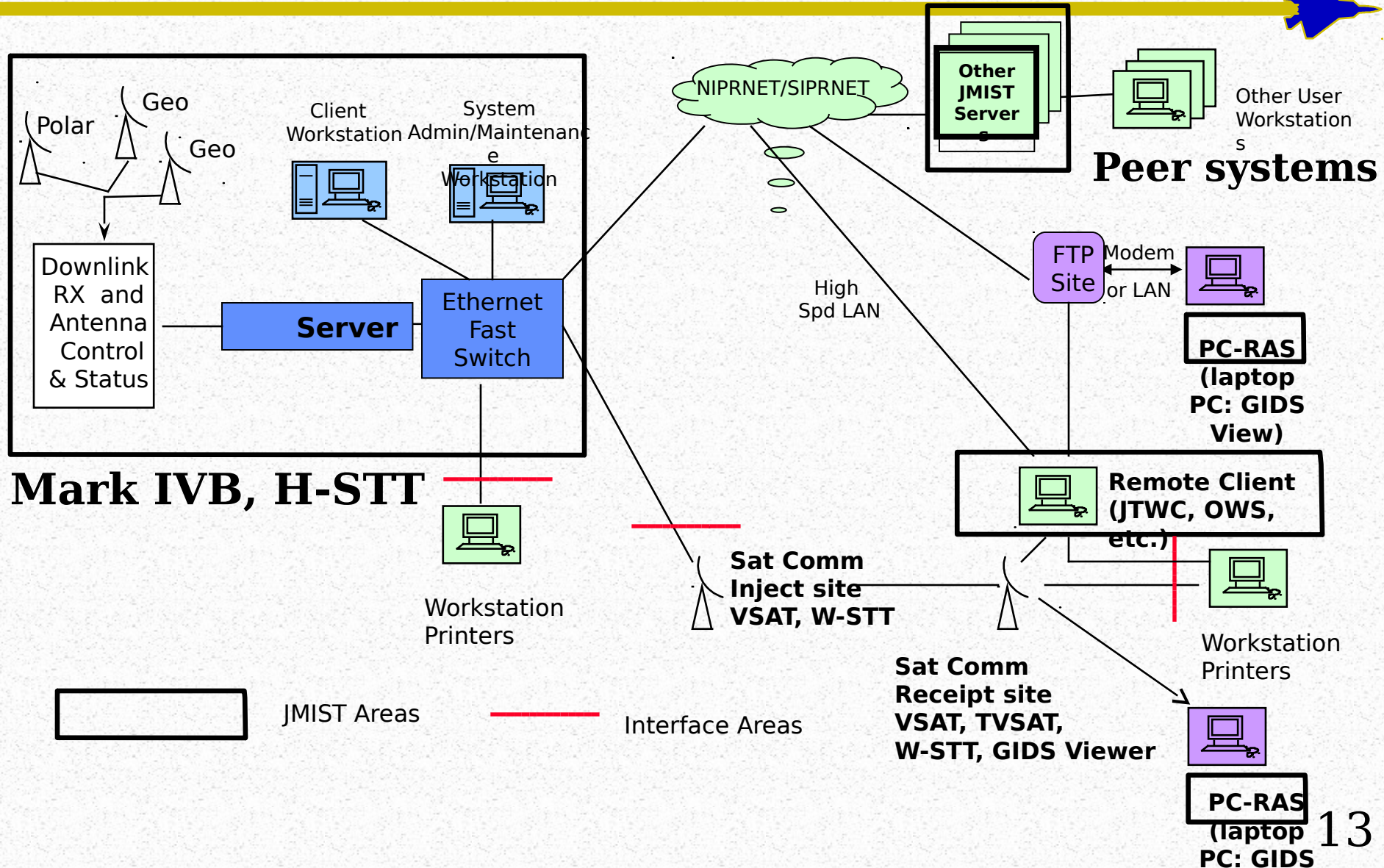
JMIST System Components



- **Common METSAT Software**
- **Common Fixed & Deployed Direct Readout Terminals**
- **Client and Remote Client Workstations**
- **PC Remote Application System (PC-RAS)**
- **Common Database Format -- geo-referenced data sets**
- **Data Distribution System**
 - **Produce common format products (e.g., GIF, etc.)**
 - **Exploit standard comm protocols (e.g., TCP/IP)**
 - **Common user and satellite comm (e.g., NIPRNET/SIPRNET, GBS, commercial comm, etc.)**



Nominal JMIST Architecture



Questions????

